ABSTRACT

METHOD AND APPARATUS FOR ENCODING A PRODUCT CODE

An apparatus for producing a product code having a
5   first dimension systematic block code of length n_x elements
and a second dimension systematic block code of length n_y
elements has a first dimension encoder 12 for receiving a
data element stream 11 to produce the first dimension
block code having k_x data elements and n_x-k_x parity
10   elements, the parity elements being derived from the data
elements. The first dimension encoder is arranged to
produce k_y first dimension code vectors where k_y is the
data element length of the second dimension systematic
block code. The second dimension encoder 14-16 is
15   representative of n_x encoders. The second dimension
encoder receives the first dimension code vectors as they
are produced and derives $(n_x n_y - n_x k_y)$ parity elements for the
second dimension systematic block code. The second
encoder is arranged to output the second dimension code
20   vectors as each is produced so as to thereby produce the
encoded product code